

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

To:

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NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing
(day/month/year)

13.10.2004

Applicant's or agent's file reference
P200200654

IMPORTANT NOTIFICATION

International application No.
PCT/EP 03/07119

International filing date (day/month/year)
03.07.2003

Priority date (day/month/year)
14.08.2002

Applicant
TELEFONAKTIEBOLAGET L M ERICSSON (publ) et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international
preliminary examining authority:



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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P200200654	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/07119	International filing date (day/month/year) 03.07.2003	Priority date (day/month/year) 14.08.2002
International Patent Classification (IPC) or both national classification and IPC H04L25/02		
Applicant TELEFONAKTIEBOLAGET L M ERICSSON (publ)et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

I ☒ Basis of the opinion

II ☐ Priority

III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability



IV ☐ Lack of unity of invention

V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

VI ☐ Certain documents cited

VII ☐ Certain defects in the international application

VIII ☐ Certain observations on the international application

Date of submission of the demand 05.03.2004	Date of completion of this report 13.10.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Papantoniou, A Telephone No. +31 70 340-4116 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/071 19**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-10 as originally filed

Claims, Numbers

1-10 as originally filed

Drawings, Sheets

1/6-6/6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/071 19**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2-5,7-10
	No: Claims	1,6
Inventive step (IS)	Yes: Claims	2,3,4,7,8,9
	No: Claims	1,5,6,10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

The following document is referred in this report:

D1: US-A-5479447

1. The present application does not meet the requirements of Article 33 PCT, because the subject matter of claims 1 and 6 is not new in the sense of Article 33(2) PCT.

1.1 Claim 1: The document D1 discloses a method for receiving coded digital data sent from a transmitter through a transmission channel of a communications network, the method comprising of the steps of:

calculating an estimate y of a sent data symbol, said estimate being represented by a first number of bits

(Column 2, line 62 - Column 3, line 9; Fig. 5b, 14)

selecting from said calculated estimate a second number of bits, said second number of bits being lower than first number of bits to achieve a rounded estimate being represented by second number of bits (Column 11, line 65-Column 12, line 3; Fig.11, 14)

decoding the rounded estimate to achieve a decoded data symbol

(Column 12, lines 5-6; Column 12, lines 26-31; Fig.11, 14)

receiving from said network a target value for a block error rate of the transmission channel

selecting said second number of bits in dependence on said target block error rate value

(Column 5, lines 42-60; Column 7, lines 11-20; Column 8, lines 36-40; Column 11, lines 33-59; Column 12, lines 26-31; Fig.14)

1.2 Claim 6: The document D1 discloses a receiver for receiving coded digital data sent from a transmitter through a transmission channel of a communications network arranged to:

calculate an estimate y of a sent data symbol, said estimate being represented by a first number of bits

(Column 2, line 62 - Column 3, line 9; Fig. 5b, 14)

select from said calculated estimate a second number of bits, said second number of bits being lower than first number of bits to achieve a rounded estimate being represented by second number of bits (Column 11, line 65-Column 12, line 3; Fig.11, 14)

decode the rounded estimate to achieve a decoded data symbol

(Column 12, lines 5-6; Column 12, lines 26-31; Fig.11, 14)

receive from said network a target value for a block error rate of the transmission channel

select from said second number of bits in dependence on said target block error rate value

(Column 5, lines 42-60; Column 7, lines 11-20; Column 8, lines 36-40; Column 11, lines 33-59; Column 12, lines 26-31; Fig.14)

2. The present application does not meet the requirements of Article 33 PCT, because the subject matter of claims 5 and 10 is not inventive in the sense of Article 33(3) PCT.

Document D1, which is considered to represent the most relevant state of the art, discloses a method and a receiver from which the subject-matter of claims 5 and 10 differs in that the target error rate is the target BLER value defined in the 3GPP specifications.

The problem to be solved by the present invention may therefore be regarded as lack of compatibility of the rounding-off procedure in Document D1 with 3GPP specifications.

The solution proposed in claims 5 and 10 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) because the use of the BLER target value is merely a choice among any error rate target values that may be used in order to adapt the receiver data truncation. The error target value is merely considered as an arbitrary threshold. Thus, the skilled person would regard it a normal design procedure to combine all the features set out in claims 5 and 10. Thus, the subject-matter of claims 5 and 10 does not involve an inventive step and does not satisfy the criterion set forth in Article 33(3) PCT.

3. Claims 2,3,4,7,8,9: The subject matter of claims 2,3,4,7,8,9 is both new and inventive and satisfies the requirement of Article 33 PCT.